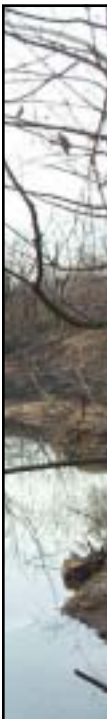




Amending Alexandria's Environmental Management Ordinance

Planning Commission Work Session

April 6, 2004



Work Session Agenda

- Re-cap of new State requirements.
- Presentation of the results of the City's stream mapping project.
- Overview of amended Environmental Management Ordinance.
 - Mandatory changes.
 - Changes to enhance Alexandria's environment.
- Discussion of new Resource Protection Area map and what it means to residents.
- Questions and answers.



Amendment Review Process

- December 2 – Planning Commission Kick-Off Presentation.
- January 28 – Alexandria Federation of Civic Associations Presentation.
- February 23 – Public presentation to the EPC.
- March 22 – Public meeting; all households within 300 feet of affected areas invited to attend.
- April 6 – Planning Commission work session.



Next Steps

- April 19 – EPC meeting.
- April 22 – Second public meeting at the Lee Center.
- May 4 – Planning Commission public hearing.
- May 15 – City Council public hearing.
- June 30th – Compliance deadline.
- Post-June – Develop support materials for ordinance implementation.

Major State Mandated Changes

Old Regulations

Protect “tributary streams” with a 100-foot RPA buffer. Defined as a “blue line” on a USGS map.

RPA map is official overlay approved by Chesapeake Bay Local Assistance Board.

Exceptions to any requirement can be approved through an administrative process.



New Regulations

Protect “water bodies with perennial flow” with a 100-foot RPA buffer. Defined by a scientifically defensible protocol.

RPA map is guidance and perennial flow must be field verified.

Exceptions to RPA requirements must go through a public hearing process.

Preparing for Changes

- What perennial stream protocol should the City adopt?
- What properties will be affected?
- What process should the City adopt to review RPA exceptions?
- How should the City address plans that are “in process” when the changes occur?



A background image showing a stream with a lot of trash floating in it, including plastic bottles and other debris. The water is murky and the surrounding area appears to be a natural stream bed with some vegetation.

City Stream Mapping and Classification Project

- 13.9 miles of City streams were assessed, not including obviously perennial streams such as Four Mile Run, Cameron Run, Holmes Run, and Backlick Run.
- Streams were classified as perennial, intermittent, and ephemeral.
- The results have been used to create a new RPA map.
- The project has also allowed the City to assess the impacts of protecting intermittent streams.

A vertical image on the left side of the slide showing a stream with some trees and a bridge in the background.

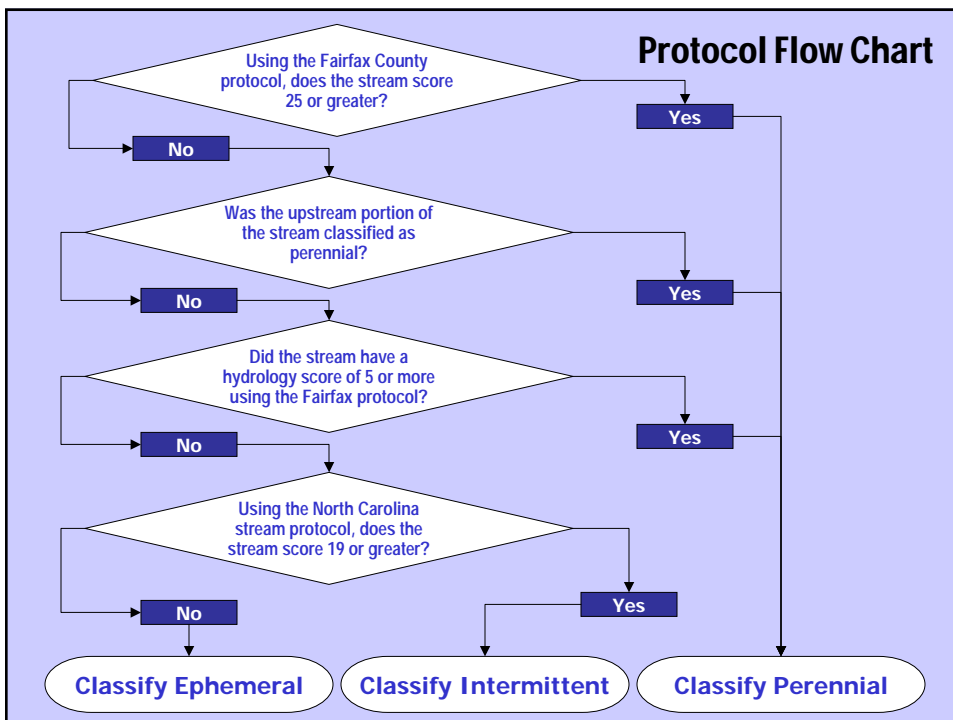
City Stream Mapping and Classification Project

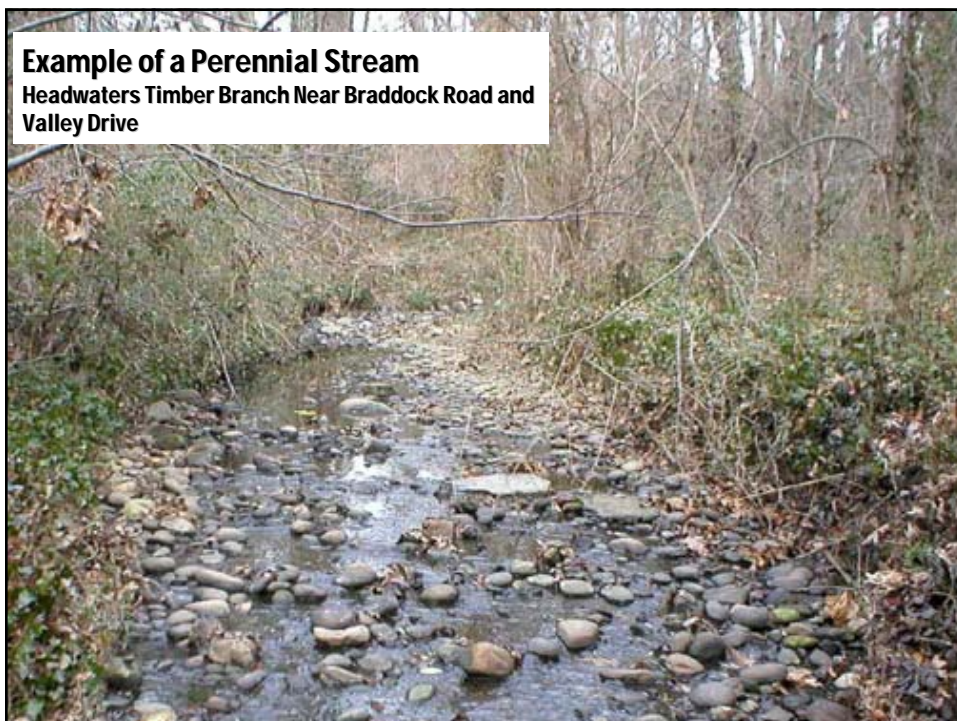
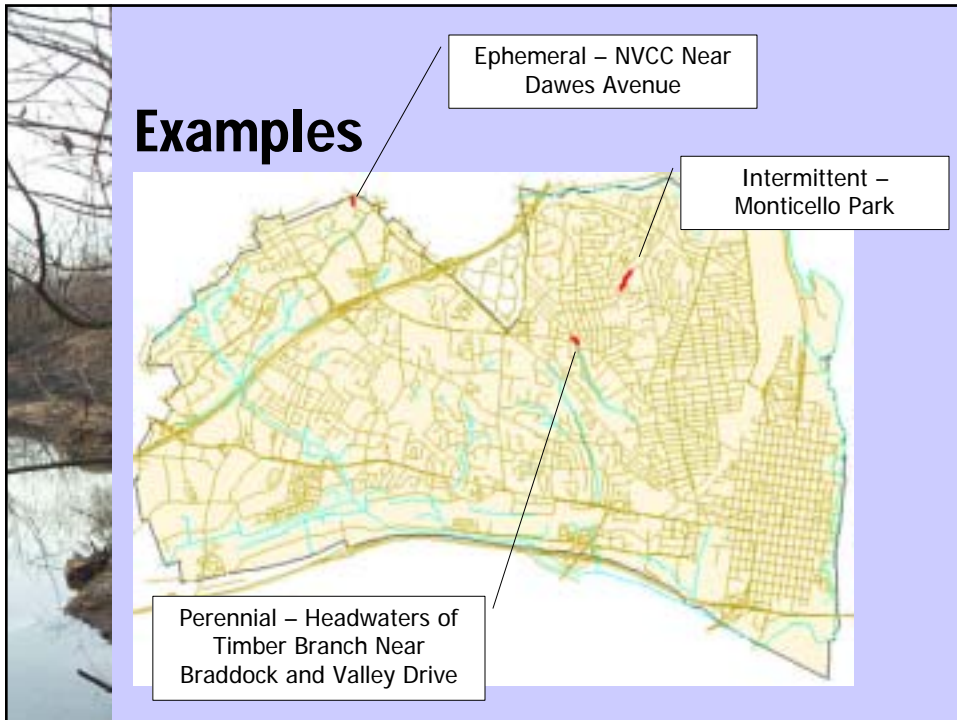
- The City used two CBLAD-approved protocols:
 - Fairfax County protocol for perennial streams.
 - North Carolina protocol for intermittent streams.
- The protocols were tested on City streams and modified to account for Alexandria's urban environment.



City Stream Mapping and Classification Project

- Protocol scoring criteria:
 - Stream flow and hydrology.
 - Geomorphology.
 - Stream bed soils.
 - Vegetation.
 - Benthic macroinvertebrates.
 - Vertebrates.
- The protocol recognizes that man-made impacts can suppress the overall score.
- In these cases, a higher weighting went to observations concerning stream flow and hydrology.

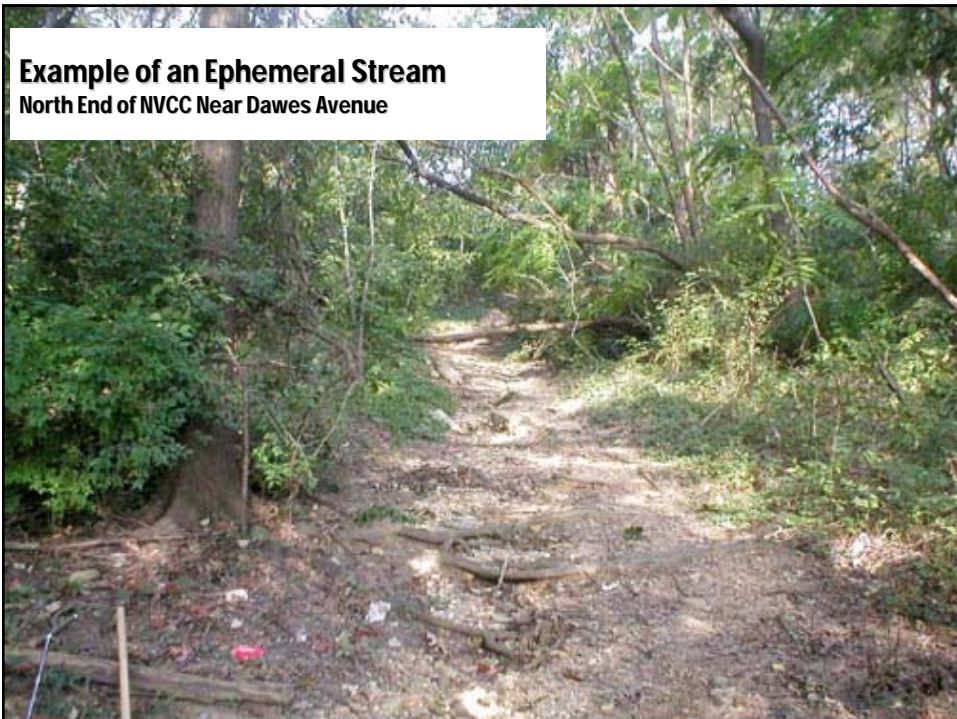


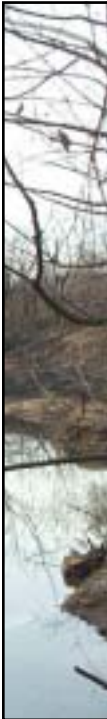


Example of an Intermittent Stream
Monticello Park



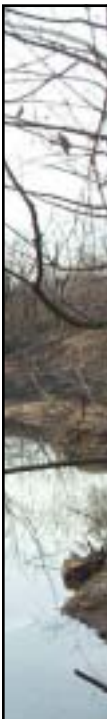
Example of an Ephemeral Stream
North End of NVCC Near Dawes Avenue





Stream Survey Results

- 1.83 miles of new perennial stream (new Resource Protection Areas).
- 0.30 miles of existing RPA (three stream reaches) reclassified as intermittent.
- Total RPA gain approximately 1.53 miles.
- Approximately 0.72 mile of intermittent streams identified.
- Approximately 1.96 miles of ephemeral streams identified.



RPA Exception Process

- The Planning Commission is proposed to hear exceptions to RPA requirements.
- Timing of exceptions:
 - Concurrently with applicable plans or permits (one right after another); or,
 - Successively at different meetings.
- Decision at the discretion of the directors of P&Z and T&ES depending on the nature of the exception request.

What activities can still be approved administratively?

- When the RPA results in a loss of buildable area on a lot platted before March 1, 2002 and the encroachment is less than 50 feet.
- Expansion of a legally nonconforming principal structure if the expansion is of similar bulk and scale to surrounding structures.



What activities would require a public hearing?


- When the RPA results in a loss of buildable area on a lot platted before March 1, 2002 and the encroachment is more than 50 feet.
- The modification or construction of any non-attached accessory structure such as a gazebo, shed, detached garage, etc.





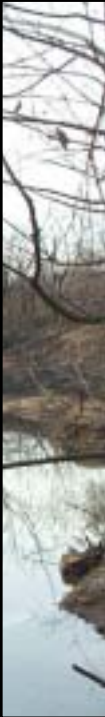
What about redevelopment?

- Redevelopment in the RPA is allowed through an administrative process if:
 - It is consistent with the Master Plan.
 - **There is no additional encroachment.**
 - There is no increase in nonpoint source pollution.
- Otherwise, the the redevelopment must go through the exception process.



What about plans already in process?

- CBLAD leaves the decision to the local government.
 - However, there is an expectation that plans will comply to the extent possible.
- Only applies to plans that are in process.
 - Under no circumstances can the City include a “grace period” for submittal of plans.



What about plans already in process?

- Staff has proposed that the following complete applications will be subject to existing requirements if submitted before February 23rd:
 - Preliminary site plans
 - Building permits
 - Subdivision plans
 - Plot plans
 - Special use permits
- Anything submitted after February 23rd will be subject to the new requirements.
- An alternative option would be date of adoption by City Council.



Voluntary Changes

- City-Wide Changes
 - Tool box approach to stormwater management requirements.
 - Enhancing BMP maintenance and enforcement.
- Changes That Affect Individual Properties
 - Protecting natural intermittent streams and other non-tidal wetlands.





Toolbox Approach to Stormwater Management

- Current ordinance requires treatment of stormwater using traditional onsite BMPs.
- Why change?
 - Onsite and offsite alternatives to traditional BMPs can, in some instances, provide greater water quality benefits.
 - Additional environmental benefits, such as improving habitat, increasing green infrastructure and open space, etc.
 - Site-specific constraints in the past have resulted in the need for waivers.



Toolbox Approach to Stormwater Management

- What will be in the toolbox?
 - Traditional onsite BMPs.
 - Stream and buffer restoration.
 - Stream daylighting.
 - Green rooftops.
 - Removal of existing RPA encroachments.
 - Combined sewer system separation.
 - Permanent preservation of open spaces.
 - Contribution to the Alexandria Water Quality Improvement Fund.
 - Other tools as identified by the City.



Toolbox Approach to Stormwater Management

- Who will decide?
 - The City will determine whether the application of the toolbox approach will achieve greater water quality benefits for a particular site.
 - Eight criteria have been proposed to help make this determination. (Page 14)
- How will the tools be developed?
 - T&ES, with input from P&Z, Parks and Recreation, the EPC and others, will develop the tools.



Example of Toolbox Approach

Stream Restoration

- Restores local aquatic habitats.
- Improves green infrastructure.
- Reduces sediment loadings to the Potomac River and Chesapeake Bay.



Example of Toolbox Approach

Green Roofs

- Turns an impervious surface area into a pervious one.
- Can reduce thermal pollution to streams.
- Best applied in areas where stream erosion is a problem due to stormwater volume and velocity.



Example of Toolbox Approach

Combined Sewer Separation

- Samuel Madden redevelopment separated two blocks of Old Town.
- Can provide greater water quality benefits by reducing combined sewer overflows.



Examples of Toolbox Approach

Contribution to Water Quality Improvement Fund



- Usually applicable to smaller sites and single-family residence not part of a subdivision.
- Difficult to treat first half inch of runoff of the entire site.
- Installation of a BMP has significant environmental impacts, such as tree loss.

Enhancing BMP Maintenance Requirements

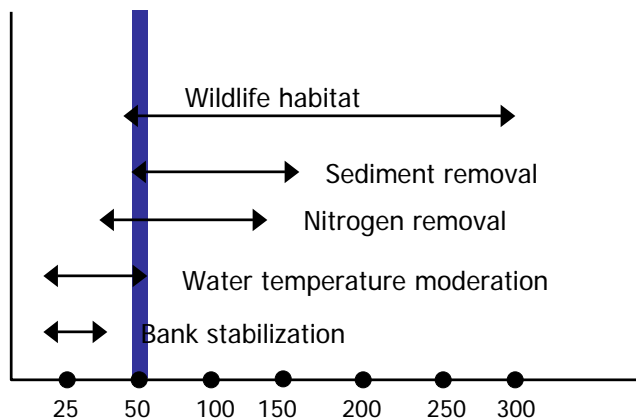
- Owners will be required to submit certification that maintenance has taken place on a schedule determined appropriate for the facility.
- City staff will have access to the facility for periodic inspections.
- If corrective action is not performed, the City may perform the maintenance and bill the owner.



Natural Intermittent Streams and Non-Tidal Wetlands

- The City is proposing to protect:
 - Intermittent streams in natural channels.
 - Non-tidal wetlands not currently protected with the RPA buffer area except “isolated wetland of minimal ecological value.”
- Performance criteria is a 50 foot buffer area.
- Why protect intermittent streams and other non-tidal wetlands?
 - The quality of intermittent streams and non-tidal wetlands directly impacts the quality of perennial streams.

Why a 50 Foot Buffer?



Source: Chesapeake Bay Riparian Buffer Handbook, 1998.

Small streams have greatest impact on temperature, nutrients, and stabilization.

Medium streams have greatest impact on aquatic habitats.

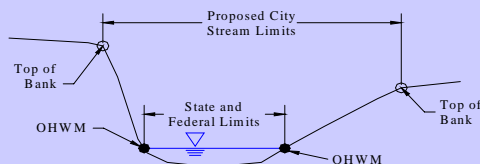
Large streams have greatest impact on flood control.

Additional Mandatory and Voluntary Changes

- **Mandatory:** Deleted section allowing for 50 foot reduction in the buffer area if a combination of smaller buffer area and BMPs could be shown to achieve similar results. (Page 7)
- **Mandatory:** Explicitly allows for maintenance of flood control and other stormwater facilities without a WQIA. (Page 8)
- **Mandatory:** Allows regional stormwater facilities within an RPA, but only if it is part of a CBLAB approved stormwater management plan. (Page 8)
- **Mandatory:** Aligns the City's stormwater quality requirements with the State Stormwater Management Regulations. (Page 11)
- **Voluntary:** Incorporates the ability to apply civil penalties for violations of the ordinance. (Page 27)

Public Comments and Responses

- **Mapping**
 - **C:** Concerns about mapping during a wet year.
 - **A:** Protocols were incorporated to minimize this influence. However, the ordinance allows property owners to conduct their own mapping and present it to the City for consideration.
 - **C:** Use "ordinary high water mark" rather than "top of bank" to designate where the 100 foot buffer area begins.
 - **A:** Recommend keeping language the same.





Public Comments and Responses

- **Mapping**

- **C:** Outline a process for de-listing RPAs and for appealing decisions by City staff.
- **A:** Recommend adding language to clarify that assessment can be done at any time (with time limit). Propose appeals be done through existing administrative process following scientific investigation.

- **Wetlands Mitigation**

- **C:** State law does not allow a local government to require wetlands mitigation above State permit requirements.
- **A:** Recommend deleting language in the ordinance and developing MOA with the Army Corps of Engineers.



Public Comments and Responses

- **Intermittent Streams**

- **C:** Clearly define what uses are allowed in the 50 foot intermittent stream buffer area.
- **A:** Recommend adding language to clarify that uses allowed are the same as those for RPAs but that the exceptions process is always administrative.

- **EPC**

- **C:** Incorporate that the EPC will be notified and provided information needed to make recommendations to the PC.
- **A:** Recommend incorporating language.

- **Vesting Date**

- **C:** Move the vesting date to adoption rather than February 24th map release date.
- **A:** Recommend keeping language as-is.

Discussion and Map Review